

### AMENDMENTS TO THE CLAIMS

Please enter the following amendments without prejudice or disclaimer.

Please cancel claims 12, 14-16, 18, 20, 25, 29-34 without prejudice or disclaimer.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently amended): A method for generating a Drosophila clipped FRT (cFRT) chromosome ~~insensitive to~~ incapable of reacting with a P transposase but ~~remaining sensitive to~~ capable of reacting with a yeast site-specific flippase recombinase (FLP), comprising steps of:

(a) obtaining a first FRT chromosome by causing a local and imprecise random transposition by exposing a FRT chromosome to said P transposase, wherein said FRT chromosome contains a P[FRT] insertion with a selection marker gene;

(b) obtaining a second FRT chromosome by screening said P[FRT] insertion for an immobility of for said first FRT chromosome lacking said selection marker gene to obtain screened products;

(c) ~~selecting candidate products~~ a third FRT chromosome from said second FRT chromosome screened products by the steps of:

(c1) examining both recombination capability and homozygous viability of said second FRT chromosome and selecting said second FRT chromosome having high screened products for both recombination capability and high homozygous viability; and

(c2) examining recombination accessibility of said second FRT chromosome sequences contained in a clipped P[FRT] insertion by the presence of said FLP to obtain said candidate products wherein said third FRT chromosome is selected based on high recombination accessibility; and

(d) ~~exposing said candidate products~~ third FRT chromosome to said P transposase and ~~selecting a desired product~~ obtaining said Drosophila clipped FRT (cFRT) chromosome by said examining processes of steps (c1) and (c2) to obtain said Drosophila clipped FRT (cFRT)

~~chromosome insensitive to said P transposase but remaining sensitive to yeast site-specific flippase recombinase.~~

Claim 2 (Previously presented): The method according to claim 1, wherein said method further comprises step (e) examining the molecular nature of a clipped insertion of said *Drosophila* cFRT chromosome by PCR (polymerase chain reaction).

Claim 3 (Canceled)

Claim 4 (Previously presented): The method according to claim 1, wherein said recombination capability of step (c1) represents the functional activity of said clipped P[FRT] insertion and its homologous location relative to that of said original P[FRT] insertion.

Claim 5 (Currently amended): The method according to claim 1, wherein said homozygous viability of step (c1) ~~represents a~~ analyzes genetic information background after said *Drosophila* clipped FRT chromosome's exposure to said P transposase in a *Drosophila* incubation system.

Claim 6 (Currently amended): The method according to claim 1, wherein said step (d) exposing said ~~candidate products~~ third FRT chromosome and selecting said ~~desired product~~ *Drosophila* clipped FRT chromosome is repeated at least twice.

Claim 7 (Original): The method according to claim 1, wherein said *Drosophila* cFRT chromosome is an isogenized homozygous viable *Drosophila* second chromosome.

Claim 8 (Currently amended): The method according to claim 1, wherein said cFRT is generated through damage and alteration of a target sequence to an incomplete target sequence, through one ~~sequence of the group consisting of:~~

- (1) a sequence that is missing ~~[[ $\phi$ ]]~~ a P5' DNA sequence region; or
- (2) a sequence that is missing ~~[[ $\phi$ ]]~~ a P3' DNA sequence region; and

~~(3) a sequence that is missing of DNA sequences other than those defined in item (1) and in item (2); and~~

wherein the target sequence is originally recognized by said P transposase and responsible for a P transposase transposition.

Claim 9 (Previously presented): The method according to claim 1, wherein said Drosophila cFRT chromosome retains the activity for a site specific recombination in the presence of said FLP.

Claim 10 (Previously presented): The method according to claim 1, wherein sensitivity to a yeast site-specific flippase recombinase (FLP) of said Drosophila cFRT chromosome is monitored by a FLP-FRT system.

Claim 11 (Currently amended): The method according to claim 1, wherein sensitivity to a yeast site-specific flippase recombinase (FLP) of said cFRT chromosome is monitored through monitoring a DNA ~~configuration~~ sequence of said cFRT chromosome by molecular biology methods.

Claim 12 (Canceled)

Claim 13 (Currently amended): The method according to claim 1, wherein a clipped P[FRT] insertion is ~~alternatively~~ moved to another chromosome from said Drosophila clipped FRT (cFRT) chromosome by treating said Drosophila cFRT chromosome with a mutagen ~~mutagens~~ or an X-ray.

Claims 14-21 (Canceled)

Claim 22 (Currently amended): A method for generating a Drosophila clipped FRT2L2R (cFRT2L2R) chromosome ~~insensitive to~~ incapable of reacting with a P transposase but

capable of reacting with ~~remaining sensitive to~~ a yeast site-specific flippase recombinase (FLP), comprising steps of:

(a) obtaining a first FRT chromosome causing a local and random ~~imprecise~~ transposition by exposing a double FRT chromosome to said P transposase, wherein said double FRT chromosome contains a first P[FRT] insertion with a first selection marker gene on one arm thereof and a second P[FRT] insertion with a second selection marker gene on the other arm thereof;

(b) obtaining a second FRT chromosome by screening for said first FRT chromosome lacking said selection marker genes of ~~respectively~~ said first P[FRT] insertion and said second P[FRT] insertion ~~for an immobility of said selection marker genes to obtain screened products;~~

(c) selecting ~~candidate products~~ a third FRT chromosome from said ~~screened products~~ second FRT chromosome by the steps of:

(c1) examining both recombination capability and homozygous viability of said screened products second FRT chromosome and selecting said second FRT chromosome having high ~~for both~~ recombination capability and high homozygous viability; and

(c2) examining recombination accessibility of said second FRT chromosome sequences contained in said a clipped P[FRT] insertion by the presence of said FLP to obtain said candidate products wherein said third FRT chromosome is selected based on high recombination accessibility; and

(d) exposing said ~~candidate products by~~ third FRT chromosome to said P transposase and selecting a ~~desired product~~ obtaining said Drosophila clipped FRT2L2R (cFRT2L2R) chromosome by said ~~examining processes of steps (c1) and (c2) to obtain said Drosophila clipped FRT2L2R (cFRT2L2R) chromosome insensitive to said P transposase but remaining sensitive to yeast site-specific flippase recombinase.~~

Claim 23 (Currently amended): The method according to claim 22, wherein said method further comprises step (e) examining the molecular nature of clipped insertions of said Drosophila ~~eFRT~~ cFRT2L2R chromosome by PCR.

Claim 24 (Currently amended): The method according to claim 22, wherein said step (b) further comprises the steps of:

(b1) obtaining said second FRT chromosome by screening said first FRT chromosome lacking said first selection marker gene of said first P[FRT] insertion ~~for an immobility of said first selection marker gene~~; and

(b2) obtaining said second FRT chromosome by screening said first FRT chromosome lacking said second selection marker gene of said second P[FRT] insertion ~~from said screened products of step (b1) for an immobility of said second selection marker gene~~.

Claims 25-26 (Canceled)

Claim 27 (Original): The method according to claim 22, wherein said first selection marker is different from said second selection marker.

Claim 28 (Previously presented): The method according to claim 22, wherein said Drosophila clipped FRT2L2R chromosome is generated from two Drosophila clipped FRT (cFRT) chromosomes (cFRT2L and cFRT2R chromosomes) by a genetic recombination method.

Claims 29-34 (Canceled)